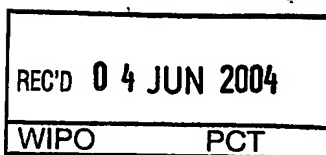




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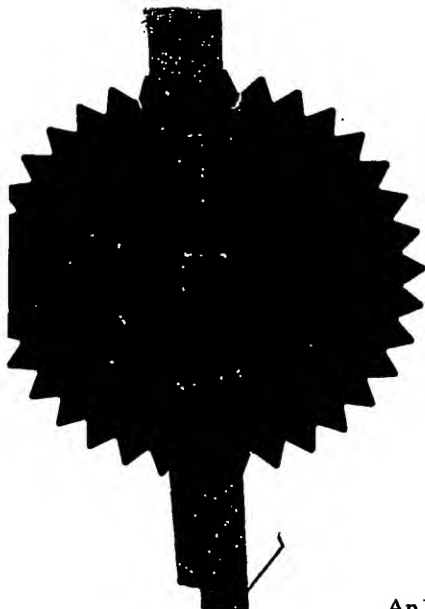


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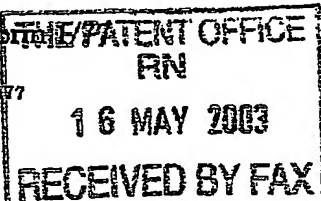


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2. Patent application number

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16 MAY 2003

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KO-PACK INTERNATIONAL (EUROPE) LTD  
13 HOLKHAM ROAD  
ORTON SOUTHGATE  
PETERBOROUGH  
PE2 6TE

Patents ADP number (if you know it)

If the applicant is a corporate body, give the country/state of its incorporation

7048333003

4. Title of the invention

METHOD AND CORRESPONDING LABEL FOR LABELLING

5. Name of your agent (if you have one)

"Address for service" in the United Kingdom to which all correspondence should be sent (including the postcode)

URQUHART-DYKES & LORD  
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-1-

## METHOD AND CORRESPONDING LABEL FOR LABELLING

This invention relates to a method and a corresponding  
5 label for labelling. An example of the application of the  
invention is to labels for use in relation to labelling  
bottles of beverages such as cola-type beverages and  
mineral waters and many other soft drinks and the like.  
However some aspects of the invention are by no means  
10 limited to such uses, and are suitable for application to  
many types of packaging applications of consumer products  
and other products.

Methods and corresponding labels proposed for use in  
such applications are extremely numerous and include labels  
15 which are permanent in terms of their attachment to the  
product, and those which are peelable, and those having  
peelable portions.

In the case of labels of the general kind to which the  
invention relates, we have identified a need for an ability  
20 to provide for product promotions of various kinds, and for  
an ability to accommodate the requirements for recycling of  
the product, and for an ability to provide a degree of  
resistance to tampering with the promotional aspects of the  
label (where such are provided), and for an ability to  
25 accommodate dual usage of the label, in the sense of the  
provision of a label which not only meets the obvious need  
to identify the product carrying it, but which is able  
simultaneously to fulfil the other functions identified  
herein.

30 An object of the present invention is to provide a  
method and a corresponding product in the form of a label  
which offer improvements in relation to at least on or more  
of these criteria, or improvements generally.

According to the invention there is provided a label

-2-

and a corresponding method of labelling comprising a combination of the features disclosed herein.

In an embodiment of the invention there is provided a method of labelling in which there is provided a label, which is detachably applied to a corresponding product. Usually the label will be secured detachably to the product by a peelable adhesive, but it is envisaged that certain applications of the invention could use non-peelable methods of securing the label to the product, such as the use of a tension-fit or friction-fit for one portion of the label and a peelable securing system for the remainder of the label.

In the embodiment, the label is applied to the product so as to be detachable by the user. Typically, but not exclusively, the label is peelably adhered to the product. Then the product is distributed to its end user, for example by sale or other mode of distribution, so that the label and its product are brought, in due time, to their place of use and/or consumption. In the case of the typical product for which the described embodiments are intended, the label is applied to a bottle for a soft drink, such as a well-known Cola-type non-alcoholic beverage.

In the thus-labelled state of the product, the user/consumer of the product will usually have displayed to him/her the nature and/or name/trade mark of the product, or some other means for identifying it, so that, as a consumer/user, that person has sufficient information for usage/consumption purposes. The invention is not limited in any way by the nature or content of such data or information, and for the purposes of the broader aspects of the invention it is sufficient that the label fulfills merely the minimum aspects of a label as such.

Accordingly, the end user of the beverage may then consume the beverage ~~according to his/her~~ needs and preferences, or the user may decide to postpone such

-3-

consumption until later. Whether or not such postponement occurs, the label offers to the user or consumer the ability to peel or otherwise open the label so as to reveal further data or information relevant to the product and/or relevant to an option available to the user or consumer, such as entry to a game of chance such as a lottery draw.

Typically, such peeling of the label is effected by the user tearing a tear strip indicated on the label, whereby the user can tear the label in one direction or dimension (for example across the width of the label), so that such tearing (or cutting by scissors for example) causes the label to be able to be peeled-back or otherwise removed or partially-removed from its attached position, thereby to cause separation of first and second peelable (or otherwise selectively removable from the product) portions of the label.

The first removable label portion is the portion which the user uses to apply the peel-causing forces to the label, and it is thus (in the embodiment) peeled-back and away from the product (typically a bottle), thereby causing the second removable portion to be separated from the first such portion. Such separation is caused in the embodiment by the provision of die-cut separation of the label portions in their manufacture, while these label portions are nevertheless connected as a sufficiently strong and coherent label structure by the additional provision of label-portion-linking means in the form of a web or strip or lengthwise label element of (in this embodiment) a transparent film of polymeric film (adapted to the use in hand). The label-portion-linking means forms part of the first label portion and overlies the second label portion, and (because it is transparent, or it could be merely translucent) it also provides visual access for the user to the second label portion, so that the user is able to see the second label portion before its separation from the

-4-

first portion, whereby printed matter or other indicia or markings on the second portion serve (prior to separation) effectively to identify the product and/or its contents and/or to provide other useful or interesting information for the user or consumer, prior to separation of the label portions.

It will now also be apparent that the separability of the label portions, and their relative visual relationship as discussed above, leads to the result that after separation of the label portions, the printed matter or other indicia or markings on the second portion can now also serve (after separation), as indeed they did prior to separation effectively to identify the product and/or its contents and/or to provide other useful or interesting information for the user or consumer, after separation of the label portions. In other words, the arrangement in the embodiment is that the separable second label portion can serve both before and after separation from the first label portion as means for carrying and showing any desired marking or indicia. As a result, the second label portion serves several functions in the embodiment.

Of these several functions, there is the first function of providing the above-discussed indicia or other markings for the product, both before and after peeling of the first label portion. Then, in addition, there is the function of forming, prior to peeling of the first label portion, an integral and coherent part of the entire label structure due to the overlying positional relationship of the first label portion, linking the two label portions and due (in the embodiment) to the use of peelable adhesive on the inner face of the first label portion, which serves to hold the second label portion to the first label portion prior to peeling.

Then, in addition to the above-discussed first function of the second label portion, there is the function

-5-

of serving (after separation of the label portions) to remain attached to the product and (if so desired by the product maker) to identify the product (which may not necessarily have been consumed at this stage), for a  
5 further period of time.

Such attachment of the second label portion to the product after separation of the label portions can be achieved, as in the embodiment, by arranging that the under or inner side of the second label portion (and usually it  
10 will also, but not necessarily so, be the case that the label first portion is likewise treated) is treated with peelable adhesive or some comparable treatment to cause it to be able to be separably attached to the product.

Thus, the label second portion serves, in the  
15 embodiment, both prior and after separation from the first label portion to identify the product or to provide some other desired information, and it can itself also be peelably (or otherwise optionally) removed from the product in a convenient manner by an end-user or other user, and  
20 for a purpose now to be discussed.

It will be apparent from, or at least it can be determined from, the above that the label system under discussion herein is able to label a product and to provide a peelable portion giving access to the interior of the  
25 label. The label at all times so far discussed (except on removal, if such is provided in any given embodiment, of all label portions) provides the ability to label or identify (if such is required by the manufacturer) the product. However, the label is able also to provide a  
30 further function which has not hitherto been discussed at any length herein, and which serves to give the product significant additional versatility. This latter function is to offer the user access to additional information, after separation of the label portions, which additional  
35 information offers (if so desired by the product



-5-

manufacturer or distributor), functions or facilities which are specifically not available (and will usually be hidden or at most only hinted at) until such separation of the label portions.

5       An example of such functions or facilities is access to a lottery or like game of chance, or related systems for the user to test his/her luck/skills/dexterity/knowledge or other qualities with a view to winning a prize of some kind. Thus, typically the label of the embodiment could  
10 offer the user access to a lottery or the like as an additional inducement to buy the product, and such is available to the purchaser only after purchase since access to the lottery is achieved by (or otherwise separating) the first and second label portions, whereby the user or  
15 consumer can (after such separation) then go on to peel (or otherwise remove from the product) the second label portion, so as to reveal the information or data or the like relating to the lottery or the like which is provided at the underside of the second label portion.. It will be  
20 well understood by those skilled in the art of such games of chance that it is by no means essential for the aforesaid information or data or the like relating to the lottery or the like to be necessarily provided at the underside of the second label portion. For example, it  
25 would be entirely possible for it to be provided at the side of the second label portion which, in use, is exposed visually through (in the embodiment) the transparent window provided by the first label portion), but is in the format of a so-called scratch card system, whereby the data is not  
30 available until the user carries out the necessary "scratching" operation. And it will equally be understood that such "scratching" operation is not (in the embodiment) possible until the first label portion has been peeled or otherwise removed from the second label portion.

35       Before looking further at the overall functions and

-7-

benefits which the described embodiments of the invention provide, there is a need to look at some of the mechanical relationships which are evident from the above, after considering the drawings, but which may not be immediately easily seen otherwise. For example there is the question of the separation of the first and second label portions, when the former is caused to be peeled (or otherwise selectively removed) from the product, in use of same.

In the embodiment, the reason why the first and second label portions separate is that there is a differential adhesiveness as between the first and second label portions and the product itself, whereby the label portions do separate, as required. It will be understood that such separation of the label portions is affected by well-known physical adhesion and other factors (such as the angle of pull, when peeling-back), and such matters are well-known in the field concerned, and therefore we do not provide full data herein, since such matters rarely significant problems. Suffice it to say that in the embodiment, the arrangement is such that the intended peeling-back is achieved by a reasonable balance between adhesion and related peelability factors, not forgetting the separability which is provided by the die-cut structure of the label web material, whereby the label portions are able to separate by virtue of the balance of adhesion and related functions discussed above. Prior to separation, the label portions are linked by the label-portion-linking means provided by the first label portion, which is peelably (or otherwise separably) connected to the second label portion, and serves to hold the two label portions together for the purposes discussed above.

It will now be seen that the above-discussed embodiments of the invention offer a remarkable series of functions, which arise from the structures disclosed above, and which we will now summarise for ease of reference, and

-8-

for purposes of definition of the invention, as follows.

Firstly, the invention provides according to one aspect thereof, a method of labelling, and a corresponding label therefor, in which first and second label portions  
5 are separably connected so that on separation, for example by peeling same apart, one or more portions of the label structure become accessible to the user or consumer, whereby additional data or information or otherwise desirable matter likewise becomes available or accessible  
10 to the user. The peelable (or otherwise separable) label portions may be arranged so that prior to separation, they are linked by a linking portion of same. Preferably the linking portion forms part of the first label portion, so that when peeled away it allows the label portions to  
15 separate independently. Preferably also the linking label portion is transparent or translucent at least in part whereby the second label portion can be seen through the first label portion, so that text, graphics or other matter can be seen by the user prior to commencing use.. By  
20 arranging that the overlying arrangement makes available the data of, or makes visible or partially visible, the second label portion, or at least provides awareness of the existence of same, the embodiments enable the overall label structure to offer to the user the availability of  
25 additional functions or facilities, so that the label structure does significantly more than a simple identification label.

A further important optional feature of the invention is the overlying relationship of the first and second label  
30 portions. This feature enables the first portion to provide security in relation to the separability of the second portion, and any related functions or information which may be associated therewith, such as lottery data or the like, prior to sale and/or use. Additionally the overlying  
35 relationship enables, in the embodiment, the first label

-9-

portion to exert its cohesiveness function in terms of holding the label structure together prior to user-separation of the label portions. A related aspect of this function which likewise arises from the overlying relationship of the label portions is the tamper-evidence option, or at least the deterrence function in the sense of deterring any tendency for potential purchasers/users of the product to attempt to examine the data or information on the second label portion without purchase or prior to purchase of the product. This function arises at a secondary level from the fact that the overlying relationship of the label portions causes the first portion to protect the second portion (on which the data, such as lottery information, is printed) from examination by casual inspection of the product. Actual tamper-evidence can be provided by providing frangible elements linking the first and second label portions, so that actual partial or complete separation then becomes more clearly evident after the event.

An additional function which is a significant further optional feature of the invention is that the above features lead to an important advantage in relation to recycling of products carrying the invention, particularly products of the kind such as beverage containers, bottles and the like. In this regard, it is a significant fact that plastic bottles (and possibly other product containers of a related construction, or of a related functionality in relation to the requirements of recycling), are much more readily recycled if they have their labels removed before subjected to the recycling procedures. Therefore it would be a significant improvement in relation to products of the bottle kind and related products if some means could be found to assist with the problem of removing labels prior to subjecting such bottles to recycling. Certain embodiments of the invention offer improvements in relation

-10-

to this problem by providing a label structure which, in use serves to encourage and even to cause (in particular product and user situations and environments) the user of the product to remove the label structure him/herself, as will now be explained.

By providing a label structure in which first and second label portions are separably provided on a single label structure, and with the facility to peel (or otherwise remove) the first label portion away from the second, while the latter remains on the product, but is then itself likewise removable by peeling or the like, the relevant embodiment enables the user to remove first the first portion of the label, and then the second such portion, for reasons connected with the intended use of the product, whereby the product itself (or more usually the empty container thereof) is rendered label-less by virtue simply of the user thereof carrying out the intended steps required for full utilisation thereof. In the embodiment, such intended steps consist of sequential removal of the label first and second label portions in order to (in accordance with an invitation on the product) gain access to the second label portion, and then to the under side of same, so that the hidden data thereon (relating to, for example, a lottery prize) can be accessed by the user.

Thus, to give an example from an embodiment of the invention, the label for a well-known cola-type product provides the usual product identification under conditions of normal use. Prior to consumer/user intervention, the label merely provides the usual identification of the product in an apparently conventional way.

However, at the suggestion of an invitation on the product itself, or on some accompanying literature, the user commences the steps of label removal in order to gain access to further information or data or to be able to enter a competition or the like. The two stages of label-

-11-

portion removal (first and second label portions) follow one another in accordance with printed matter information on the product or its accompanying literature. After such removal, in the embodiment, the product is substantially  
5 free of labelling altogether, although such complete removal is certainly not a requirement of this aspect of the invention as it is most likely that significant benefits in relation to recycling can be obtained by removal of only at least a substantial portion of the label  
10 material from the product prior to recycling.

Of course it goes without saying that in many a case a user may not actually get round to removing both label portions completely (due to any number of extraneous factors) prior to recycling, particularly as such is, in  
15 principle, not related to recycling in any direct way, but only as a beneficial consequence of the label structure and an available mode of use of same.

Embodiments of the invention will now be described by way of example with reference to the accompanying drawings,  
20 in which:

Fig 1 shows a plan view of a portion of a label; and  
Fig 2 shows a cross-section through the label of Fig 1 on the line II-II in Fig 1, and showing the general structure of the label in terms of the label portions which  
25 form the label components.

As shown in the drawings, a label 10, is intended for use in relation to the labelling of a product such as a bottle of a cola-style beverage, being in this case of sufficient length to extend around the periphery of the  
30 beverage bottle (not shown).

In the drawings the mode of representation of the label web is somewhat diagrammatic in order to show the generalities of the structure with clarity. Thus, for example, it needs to be understood that the body of the  
35 label comprises conventional label web materials such as

-12-

paper or synthetic polymeric materials, or indeed hybrid materials may be available and suitable for certain applications. Accordingly it will be understood that the proportions of the label web materials in terms of their thickness in relation to their other dimensions are not to be taken as indicative of actual dimensions, but only as indicating the general structure of the label, and the overall dimensions and proportions of the label are generally in accordance with established practice, as the practice of the present invention does not affect those practical issues to any great extent.

Accordingly the length of label 10 is such as to extend around a bottle of cola or other beverage to which it relates (by identifying that product), with, perhaps a small degree of overlap, in the usual way, where the label ends meet each other.

Label 10 comprises a front side 12 and a rear side 14. Front side 12 faces outwards in use, and rear side 14 faces inwards towards product 16 (shown in cross-section and only a portion thereof) in the form of a moulded plastic beverage bottle 18, having side walls 20, to the outside of which label 10 is to be applied.

Label 10 comprises two main elements, namely a front transparent cover web 22, and a rear, printed web 24 formed with die-cut regions 26, which in this embodiment are of generally rectangular format. The two main elements of the invention are however inter-related in a manner not immediately apparent from the above general structure, as will now be explained.

There is applied to the rear face of cover web 22 a layer 28 of peelable adhesive and a corresponding layer 30 of adhesive is applied to the rear face of printed web 24 for a purpose to be described below.

Printed matter is provided on both faces of printed web 24. The printed matter on its front face 32 is visible

-13-

to users through transparent cover web 22 and through adhesive layer 28. The printed matter on the rear face of web 24 is only accessible and visible for reading purposes after a further peeling operation, to be described below.

5 In use, label 10 is adhered to bottle 18 through adhesive layer 30, and serves to identify the product by virtue of the printed matter on the front face 32 of web 24, and which is visible through transparent cover web 22. Then the user is caused to decide to remove a portion of  
10 the label to gain access to another portion thereof. As discussed above this is achieved by means of publicity material, which may be printed on the label, or it may be available in addition or as well in the form of an invitation to inspect the reverse or adhered face 34 of the  
15 die-cut regions 26 so as (for example) to have the opportunity to win a prize. In order to gain access to the face 34, the publicity material invites the user to peel back the outer or top layer of the label 10, namely cover web 22, in order to take the essential first step.

20 The first step for this purpose comprises, as mentioned, peeling back the cover web 22. This step causes the following. Because cover web is adhered to rear, printed web 24 formed with die-cut regions 26, the effect of such peeling action is to peel away not only the  
25 transparent cover web 22, but also the outer web-portion 36 surrounding the die-cut regions 26, thus leaving those die-cut regions adhering to the bottle 18 at spaced locations thereon.

It can now be seen that the portions of label 10 which  
30 separate as above for the purposes described, constitute first and second label portions for the purposes of the invention. Thus the first portion of the label comprises the cover web 22 and the outer web-portion 36, and the second portion of the label is provided by the die-cut  
35 regions 26.



-14-

After the first label portion 22, 36 has been peeled away, the second such portion 26 can then be peeled away (because it is now no longer covered by the first portion) to reveal the printed matter on the undersides of the second portions, which will enable the user to enter a competition or else to do something else connected with the product 16 in accordance with the information relating thereto.

10

-15-

The present invention relates to a printed label to be adhered on a transparent plastic container or glass container.

Printed labels have been used as contents indicators (quality marking) for easily identifying the contents of, or as information indicators for providing sales-promoting information on plastic bottles such as PET bottles, plastic-molded containers, glass bottles, metallic cans, and so on by adhering the printed labels thereon using adhesive agents and so on, and they have been widely distributed as cheap displaying means.

In recent years, the trend has been for the information contents of the labels to increase. A printed label in which printed layers having textual information or pictorial information are formed on the both sides of a base film has been also studied. In recent years, furthermore, the trend has been for the information of the label to include novelty information such as points. There is a tendency of hiding the novelty information from view and finding pleasure in stripping off a label.

In recent years, furthermore, recovery and recycle of waste materials such as PET bottles to render them reusable have been investigated. However, there is a problem in that PET bottles cannot be reusable when the labels are remained as being adhered thereon.

Therefore, the present invention focuses attention on the aspirations of consumers to accumulate the novelty information and aims to provide a printed label that allows the consumer to positively strip off a printed matter containing novelty information and also allows waste materials such as PET bottles to be easily reused.

The above problems can be solved by a printed label characterized in that printed layers having textual information and/or pictorial information are formed on the upper side and the back side of a surface substrate

-16-

composed of a white or milky-white film, respectively, and novelty information is printed on the printed layer on the back side of the surface substrate and also a back substrate is removably adhered thereon.

5        Preferable aspects of the present invention are those of which (1) the novelty information printed on the printed layer on the back side of the surface substrate is textual information and/or pictorial information including point  
10       information and/or lottery information, (2) the novelty information printed on the printed layer on the back side of the surface substrate is present in an information frame in the printed layer, (3) a shielding printed layer having textural information and/or pictorial information is formed  
15       on one side or each of the opposite sides of the back substrate, and (4) a tear-off line for removing the novelty information is formed on the surface substrate.

Another preferable aspect of the present invention is a printed label, characterized in that printed layers having textual information and/or pictorial information are  
20       formed on the upper side and the back side of a surface substrate composed of a white or milky-white film, respectively, and novelty information is printed on the printed layer on the back side of the surface substrate and also a back substrate is removably adhered thereon, the  
25       novelty information printed on the printed layer on the back side of the surface substrate is present in an information frame in the printed layer, a tear-off line for removing the novelty information is formed on the surface substrate, a shielding printed layer having textural  
30       information and/or pictorial information is formed on one side or each of the opposite sides of the back substrate, and the back substrate and the shielding printed layer are punched out while leaving a portion that shielding the  
35       information frame formed on the printed layer on the surface substrate.

-17-

Hereinafter, the mode of carrying out the invention will be described with reference to the drawings.

In Fig. 1, 1 denotes a surface substrate which is a white or milky-white film. The white or milky-white film is formed by providing a base film with a variety of white pigments (it may be either of addition or kneading). As a white pigment, an inorganic white pigment such as titanium oxide, silica, alumina, zinc oxide, or barium sulfate is used.

As a base film, a polyester film such as polyethylene terephthalate or polybutyrene terephthalate, or a polyolefin film such as polyethylene or polypropylene is used.

2 denotes a printed layer formed on the upper side of the surface substrate 1 and 3 denotes a printed layer formed on the back side of the surface substrate 1.

The printed layers 2, 3 contain textual information and/or pictorial information. The printed layer 2 will be formed on the upper side (the position which can be easily viewed by the consumer) at the time of adhering a printed label of the present invention on a container such as a plastic bottle such as a PET bottle, a glass bottle, or a plastic molded container.

Therefore, the textual information and/or pictorial information represented on the printed layer 2 include quality information, advertising information, trademark, registered design, and so on of the products field in the containers. The information represented on the printed layer 2 may be either of textual information or pictorial information or both of them.

The printed layer 3 is generally formed on a position which cannot be viewed from the consumer. Thus, it includes novelty information comprised of textural information and/or pictorial information, which would have value when it is actually viewed. Such novelty information

-18-

includes point information (a free gift will be presented when points are piled up to a predetermined point), lottery number information (a person who has the number which wins a prize will get a free gift or a reward), and so on. Furthermore, combined information (e.g., (i) a free gift can be obtained when three numbers in one group are identical (e.g., 777) with each other, or (ii) a free gift can be obtained when a combination of a plurality of images is completed, and so on) and so on are also included.

There is no need to include the above novelty information in the whole of the printed layer 3. In a preferable mode, it is contained in the inside of an information frame 30 represented by a broken line in the figure.

Ink to be used in the printed layers 2, 3 is not specifically limited, so that various kinds of ink may be used. The pigments for ink include powdery inorganic substances such as titanium dioxide, zinc oxide, iron oxide, zirconium oxide, ceric oxide, magnesium oxide, chromium oxide, silica, alumina, zeolite, talc, kaolin, aluminium silicate, calcium silicate, magnesium silicate, barium silicate, calcium carbonate, magnesium carbonate, barium sulfate, magnesium sulfate, calcium sulfate, calcium phosphate, and iron titanate, and powdery or beaded organic substances such as polyamide resin, polyethylene, polypropylene, polystyrene, polymethylmethacrylate, copolymer of styrene and acrylic acid, fluorocarbon resin, chitin, chitosan, and cellulose.

In the present invention, the novelty information is added on the surface substrate, so that the consumer will positively remove the printed label itself from a container such as a PET bottle for collecting the novelty information by stripping off. Therefore, the recycling of waste bottles such as PET bottles can be facilitated.

4 denotes an adhesive layer. An adhesive agent is not limited to a specific one as far as a layer to be formed on

-19-

the back of the adhesive layer 4 is capable of being stripped off. Preferably, it may be one without contaminating or destructing the information on the printed layer.

5        5 denotes a back substrate that serves a function of shielding the novelty information on the surface substrate 1. As a back substrate 5, a transparent or opaque film is used. The film to be used is a polyester film such as polyethylene terephthalate or polybutyrene terephthalate,  
10       a polyolefin film such as polyethylene or polypropylene, or the like.

6 denotes a shielding printed layer formed on the upper side of the back substrate 5, and 7 denotes a shielding printed layer formed on the back side of the back  
15       substrate 5. By the way, in the embodiment shown in the figure, there is illustrated an example in which the shielding printed layers 6, 7 are formed on the opposite sides of the back substrate 5. However, it may be only formed on one of them. In this case, from the point of  
20       providing the information on a position viewable from the outside, it is preferable to form the shielding printed layer 7 on the back side of the back substrate 5.

On the shielding printed layers 6, 7, textual information and/or pictorial information are/is printed.  
25       The information includes advertising information, animation information, commercial information, and so on.

The shielding printed layers 6, 7 formed on the back substrate 5 and one or both sides thereof are punched out while remaining an information frame 50 that contains the  
30       textual information and/or pictorial information. It is preferable to arrange the information frame 50 on a position corresponding to the information frame 30 of the above surface substrate 1.

Means for punching out the information frame is not  
35       specifically limited. The back substrate 5 is only punched

-20-

out along the above information frame 50 in a state of being attached on the surface substrate 1 and the back substrate 5 such that the printed layer containing textual information and/or pictorial information is remained as it is. The punched portion around the information frame 50 is removed by exfoliation. In Fig. 2, there is shown a state after being punched out. Such a punching allows the back substrate 5, and the shielding printed layers 6, 7 corresponding to the information 50 to be remained on the portion of the information frame 30 of the printed layer 3 on the back side of the surface substrate 1. Therefore, the information in the information frame 30 is brought into a state of being shield to prevent the novelty information such as points from being known from the outside.

In Fig. 3, there is shown a state of using an example of the printed label of the present invention, showing a state in which the back substrate 5 is stripped off from the one end thereof. The information frame 30, which is the printed surface of the back side of the surface substrate 1, appears when the back substrate 5 is stripped off, resulting in the appearance of the novelty information such as points which have not been seen up to then. When the novelty information is point information, the consumer positively removes the printed label of the present invention to collect the points.

For facilitating the removing operation, it is preferable to previously form a tear-off line 10 on the surface substrate 1.

It is preferable that the consumer removes the label as described above. Therefore, no label is found at the time of collecting containers such as PET bottles so that the removal of a label may be not required at the time of recycling.

The present invention is suitable as a printed label for a shrink-wrapping in which a film is covered on the

-21-

upper side of a material such as a PET bottle to be wrapped and is then heated entirely to shrink the film so as to be brought into intimate contact with the upper side of the material to be wrapped.

5           Consequently, according to the present invention, attention is focused on the aspirations of the consumers to collect the novelty information and it is possible to provide a printed label that allows the consumer to positively strip a printed material including novelty  
10 information to facilitate the recycle of waste materials such as PET bottles.

Fig. 1 is a schematic cross sectional diagram that illustrates the process for manufacturing an example of the printed label of the present invention.

15           Fig. 2 is a schematic cross sectional diagram that illustrates the result of the manufacture of the example of the printed label of the present invention.

Fig. 3 is a diagram that illustrates an example of using the above-mentioned printed label.

- 20           1: Surface substrate  
            2, 3: Printed layer  
            4: Adhesive layer  
            5: Back substrate  
            6, 7: Shielding printed layer  
25           10: Tear-off line  
            30, 50: Information frame



1/1

FIG 1

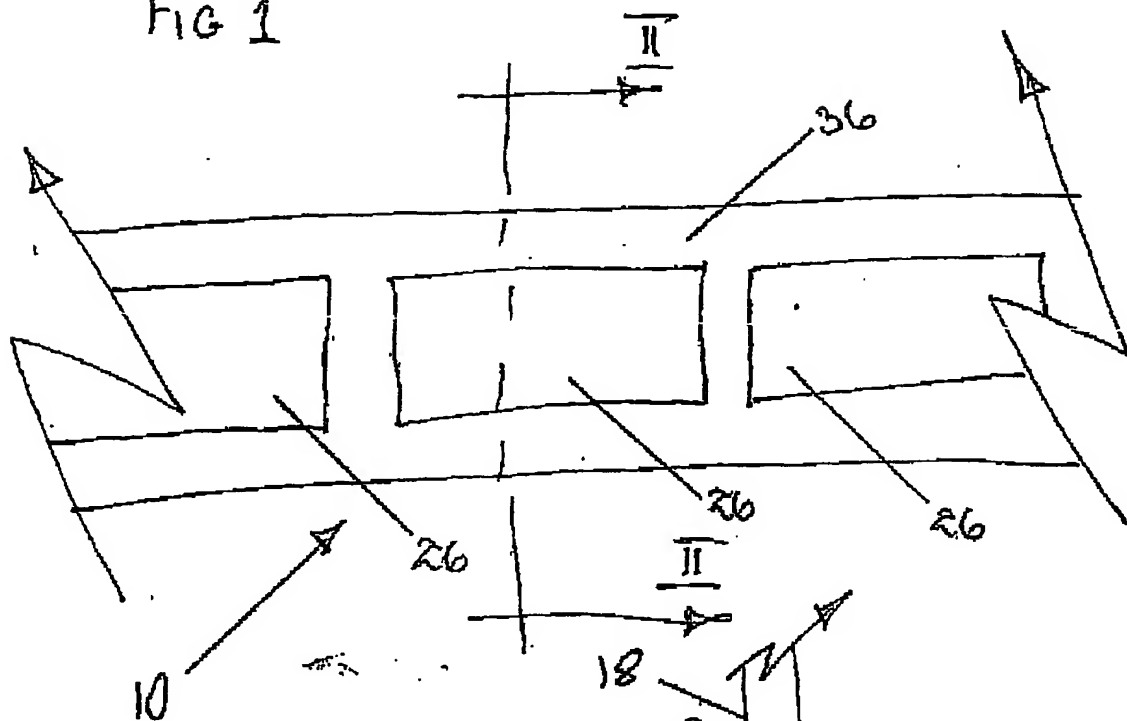
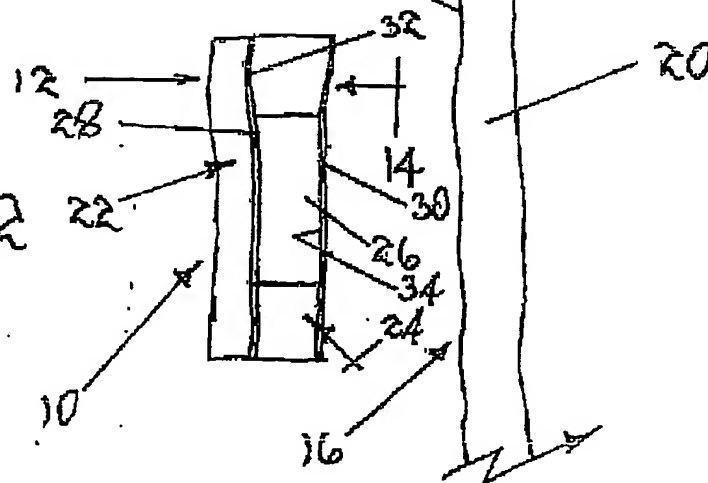
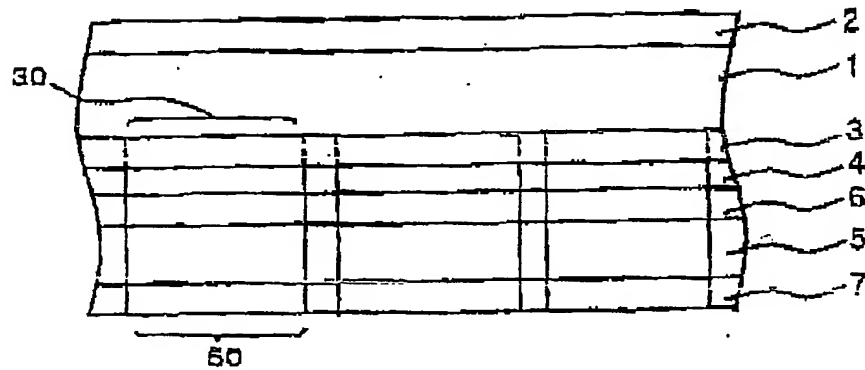


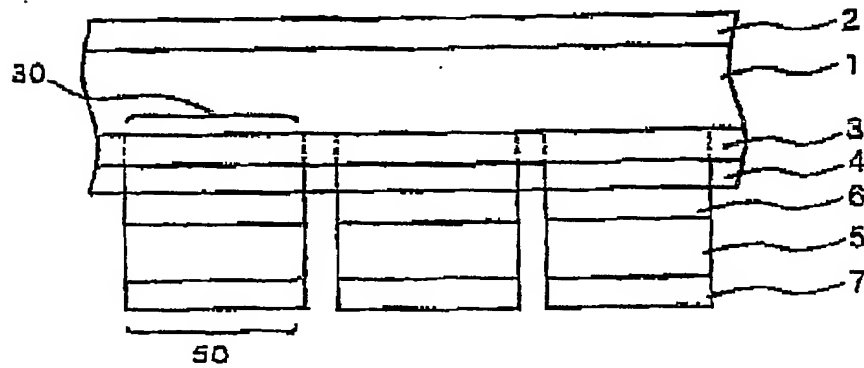
FIG 2



11



21



31

